

Amendments to the Specification:

Please amend the specification as follows:

Please replace the paragraph beginning on page 1, line 4, with the following amended paragraph:

The invention relates to a heat exchanger, in particular for motor vehicles, for a first and a second flow medium, ~~in particular as described in the preamble of patent claim 1.~~

Please replace the paragraph beginning on page 3, line 1, with the following amended paragraph:

~~This object is achieved by the features of patent claim 1.~~ According to the invention, it is provided that the tube bundle and one of the two tube plates are formed integrally and can be produced by the impact extrusion process which is known per se. Impact extrusion is a known technology related to other forms of extrusion, in which a billet is forced through a shaping tool (die) (cf. Dubbel, Taschenbuch für den Maschinenbau [Mechanical Engineering Handbook], 20th edition, p. 30). The material used is preferably an aluminum extrusion alloy which is especially suitable for impact extrusion. The product produced by impact extrusion in this way is a finished tube plate which is seamlessly and integrally adjoined by all the tubes of the tube bundle. This has the advantage that firstly there is no need for separate production of the tube plate and the tubes and secondly the complex joining of tubes and tube plates, for example by welding or soldering, is eliminated. This considerably reduces production costs. The remaining parts, such as the second tube plate, the housing and the connection pieces, consist of aluminum materials and are joined to the impact-extruded part in a conventional way, for example by soldering or welding. A further advantage is that it is possible to produce any desired tube cross section, whether round or polygonal, as shown in the examples of Figures 3 and 4, by impact extrusion. A further advantage is that the tubes of the tube bundle can be produced in any desired length and wall thickness. The thermal stability is also achieved by a low-stress geometry of the all-aluminum heat exchanger according to the invention.

Please replace the paragraph beginning on page 4, line 6, with the following amended paragraph:

According to an advantageous configuration of the invention, a [[the]] transition region 20 between the tubes 3 and the tube plates 4, 12 is configured to be round, i.e. provided with a radius, as shown in the example of Figure 5. This has the advantage of an increased strength as a result of a favorable grain profile and of improving the flow properties of the material. The transition radius is preferably arranged on the outer side of the tube, but may also be provided in the inflow region of the tube at the tube plate. The latter option would further reduce the pressure drop on the primary side.

Please insert the following new paragraph at page 5, line 4:

Fig. 3 shows a cross-sectional view of a tube with a round cross-section.

Please insert the following new paragraph at page 5, line 4:

Fig. 4 shows a cross-sectional view of a tube with a rectangular cross-section.

Please insert the following new paragraph at page 5, line 4:

Fig. 5 shows a cross-sectional view of a tube bundle and a tube plate.

Please insert the following new paragraph at page 5, line 4:

Fig. 6 shows a cross-sectional view of a tube 3a with a fin or turbulence generator 30.